

AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for preparing ethylene polymers carried out in the presence of a catalyst system comprising (i) a solid catalyst component comprising Mg, Ti, halogen, and optionally an internal electron donor compound (ID), and (ii) an Al-alkyl compound; said process comprising at least two ~~step~~steps of polymerization (a) and (b), in which:
 - in a first step (a) ethylene is polymerized in the presence of a molecular weight regulator in order to produce an ethylene (co)polymer; and
 - in a further step (b), which is carried out in the presence of an external electron donor compound (OD) added to this polymerization step as a fresh reactant, ethylene is copolymerized with an alpha olefin comonomer of formula $\text{CH}_2=\text{CHR}$, in which R is a C1-C20 hydrocarbon group, to produce an ethylene copolymer having a molecular weight higher than that of the ethylene (co)polymer produced in step (a).
2. (original) The process according to claim 1 in which the solid catalyst component (i) comprises a Ti compound and a magnesium dihalide.
3. (currently amended) The process according to claim 2 in which the solid catalyst component (i) further comprises an internal electron donor compound (ID) selected from alcohol, glycols, esters, ketones, amines, amides, nitriles, alkoxysilanes and ethers.
4. (currently amended) The process according to claim 3 in which the internal electron donor compound (ID) is tetrahydrofuran or ethylacetate.
5. (currently amended) The process according to claim 1 in which the ~~outside~~external electron donor compound (OD) added to the polymerization step (b) as a fresh reactant is THF.
6. (original) The process according to claim 1 which is carried out in gas-phase.
7. (currently amended) The process of claim 6 in which the polymerization ~~step~~steps (a) and (b) are carried out in two fluidized bed reactors.
8. (currently amended) The process of claim 6 in which the polymerization step (a) is carried out in a fluidized bed reactor, and the step (b) is carried out in a gas-phase reactor having two interconnected polymerization zones.
9. (original) The process according to claim 1 in which the polymerization step (a) is carried out in the presence of hydrogen.

10. (currently amended) The process according to claim 1 in which the alpha-olefin comonomer used in polymerization step (b) is selected from 1-butene, 1-pentene, 1-hexene, 4-methyl-1-pentene, 1-heptene and 1-octene.
11. (currently amended) The process according to claim 1 in which the alkyl-Al compound (ii) is selected from ~~the~~trialkyl aluminum compounds.
12. (original) The process according to claim 11 in which the trialkyl aluminum compound is used in mixture with alkylaluminum halides.
13. (currently amended) The process according to claim 1 in which the components (i), (ii), and optionally the external electron donor compound (OD) ~~compound~~ are pre-contacted before being introduced into ~~the~~a reactor, for a period of time ranging from 0.1 to 120 minutes at a temperature ranging from 0 to 90°C.
14. (currently amended) The process according the claim 1 in which in the polymerization step (a) is produced an ethylene polymer having a density not less than 0.955 kg/dm³ and in the copolymerization step (b) the copolymer produced has an average molecular weight ranging from 100000 to ~~1.000.000~~1,000,000 g/mol.